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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/856,745	09/24/2001	Mark G Luehrmann	8016-547	3350

7590 07/29/2003

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EXAMINER

VAN PELT, BRADLEY J

ART UNIT

PAPER NUMBER

3682

DATE MAILED: 07/29/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/856,745

Applicant(s)

LUEHRMANN ET AL.

Examiner

Bradley J Van Pelt

Art Unit

3682

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 June 2003.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claim 1, 2, 6, 7 are rejected under 35 U.S.C. 102(b) as being anticipated by Nolte (DE 37 33 982).

Nolte discloses an engine cylinder piston-connecting rod subassembly for use in an engine comprising: a piston (fig. 4); a connecting rod (8) having a piston-end portion (1) which is assembled into said piston, said piston-end portion defining a bore for receipt of a piston pin, said connecting rod having a first end and an opposite second end, said connecting rod including as part of said bore a first profiled relief portion adjacent said first end and a second profiled relief portion adjacent said second end (see fig. 3); and a piston pin inserted through said bore and into portions of said piston for securing together said piston and said connecting rod; wherein said first profiled relief portion and said second profiled relief portion each have a curved surface (5a) (see columns 3 and 4 lines 39-68 and lines 1-2).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 4 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nolte.

Nolte discloses the claimed invention except for the first profiled relief portion and the second profiled relief portion are each shaped with a plurality of end to-end frustoconical sections.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide a plurality of end-to-end frustoconical surfaces, since it has been held that mere duplication of the essential working parts of a device only involves routine skill in the art.

5. Claims 3, 5, 8, 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nolte, as applied to claims 2, 4, 7, and 9 in view of Tools Engineers Handbook, 1449 McGraw-Hill Book Company, Pages 1228-1229.

Nolte discloses all of the instantly claimed invention except a coating surface is applied to said bore.

The Tools Engineers Handbook, 1449 McGraw-Hill Book Company, Pages 1228-1229, teaches the application of a coating to metallic surfaces.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the bore of Nolte with a coating surface for the purpose of increasing the wear resistance.

6. Claims 4, 5, 9, and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nolte in view of Bien (USPN 4,940,002).

Nolte discloses the claimed invention except for the first profiled relief portion and the second profiled relief portion are each shaped with a plurality of end to-end frustoconical sections; wherein a coating is applied to said bore.

Bien shows a first profiled relief portion and a second profiled relief portion are each shaped with a plurality of end to-end frustoconical sections (see fig. 8).

Bien shows a coating is applied to the bore (see column 3, lines 16-19).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the connecting rod of Nolte with a plurality of frustoconical surfaces for the purpose of reducing edge wear.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the bore of Nolte with a coating for the purpose of lubrication of the bore.

Response to Arguments

7. Applicant's arguments filed June 30, 2003 have been fully considered but they are not persuasive. Applicant submits the prior art reference DE 37 33 982 A1 to Nolte does not anticipate claims 1 and 6 nor constitute a rejection under U.S.C. 102(b). Specifically, applicant states Nolte does not show a contoured bore. It is clearly shown in fig. 3 that the ends of the bore of Nolte are contoured. Also the applicant's claim does not require ends of cylindrical sections of the bore to be curved, as in deviating from a straight hollow tube path. Applicant requires "including as part of said bore a first profiled/shaped relief portion adjacent said first end and second profiled/shaped relief portion adjacent said second end," therefore, any triangular-shaped upper portion of crank arm connected to a piston will anticipate this limitation.

Conclusion

8. THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

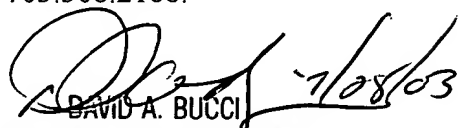
A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bradley J Van Pelt whose telephone number is 703.305.8176. The examiner can normally be reached on M-Th 7:00-4:30, 2nd F 7:00-3:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David A Bucci can be reached on 703.308.3668. The fax phone numbers for the organization where this application or proceeding is assigned are 703.872.9326 for regular communications and 703.872.9327 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703.308.2168.

BJVP
July 25, 2003


DAVID A. BUCCI
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600